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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>21 October 2008</u>.

2a)☒ This action is **FINAL.** 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1 and 3-31</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1,3-31</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communication filed on 10/21/2008. Claims 1,3-31

   are presented for examination. Claim 2 is cancelled.

2. This amendment has fully considered and entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1,3,7-12,16-17,20-25,28-31 rejected under 35 U.S.C. 103(a) as being

unpatentable over Chandrasekaran et al. U.S. Patent # 6,397,352 (hereinafter

Chandrasekaran) in view of Hamada et al. U.S. Patent # 5,596,720 (hereinafter

Hamada) further in view of Kalkunte et al. U.S. Patent # 5,850,525 (hereinafter

Kalkunte)

As per claim 1, Chandrasekaran teaches a method of handling a message

received at a messaging system server, the method comprising:

-storing, in non-persistent storage, the message; (Fig. 2A element 204) (column

6 lines 61-67) (column 7 lines 1-2). **NOTE:** The reference teaches the message is

stored in the propagation queue (non-persistent storage).

-determining whether the message has been delivered (column 11 lines 8-22);

NOTE: The reference teaches storing in a table within non-volatile memory a

message w/ UID value and initial states "prepared". The prepared state indicates the

message has been sent but that an acknowledge message has not yet been received for the message from the destination site (determining whether the message has been delivered) since the acknowledgement has not been received, it means it is determining if the message has been delivered.

-if the message has been delivered, removing the message from the non-persistent storage (column 12 lines 24-31) **NOTE:** The reference teaches after the receiving message A in the destination site, message A will be dequeued from the received message queue (i.e. non-persistent storage).

- after a delay interval has elapsed (column 12 lines 12-13), and if the message has not been removed from the non-persistent storage, saving the message to persistent storage (column 7 lines 31-39)(column 10 lines 43-67)(column 11 lines 1-22)(column 12 lines 4-11, lines 33-42).

NOTE: In column 10 lines 43-67, column 11 lines 1-22, Chandrasekaran teaches the message is in the propagation queue which is non-persistent storage (volatile) and transmitting the message to the destination site, and still storing the message in the propagation queue (Fig. 3 element 312)(storing message in non-persistent storage) because the acknowledge message has not yet been received (responsive to the attempt not being successful), the propagation process then receives message data (content of the message) to store in durable or non-volatile memory (persistent storage) at the source site and by maintaining the propagated message data in a nonvolatile memory (column 7 lines 30-39) a recovery mechanism is provided that allows the source site to determine whether the message has been sent to the destination site.

Chandrasekaran teaches after the delay interval has elapsed saving the message to the persistent storage (column 7 lines 31-39)(column 10 lines 43-67)(column 11 lines 1-22) but is silent in teaching so that message can be retrieved and delivered. Hamada teaches saving the message to the persistent storage so that message can be retrieved and delivered (Fig. 21 element 101-5, 201-5)(column 17 lines 35-65)(Fig. 23). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention was made to implement Hamada's teaching in Chandrasekaran's teaching to come up storing message in non-persistent storage for an interval and retrieving and delivering the message that is save in the persistent storage. The motivation for doing so would be so the message can be retrieved from the non-volatile memory and retransmitted or re-sent to the receiver or the destination at a later time, therefore non-volatile/persistent storage is used to save the message for later retransmission.

Chandrasekaran, and Hamada teaches if the message has not been removed from the non-persistent storage, saving the message to persistent storage so that message can be retrieved and delivered but are silent in teaching after a configurable delay interval has elapsed.

Kalkunte teaches after a configurable delay interval (column 5 lines 15-44)(column 6 lines 65-67). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention was made to implement Kalkunte's teaching in Chandrasekaran and Hamada's teaching to come up with having a delay interval that is

configurable. The motivation for doing so would be so that the user can set the amount to wait for the delay interval, before saving the message to the persistent storage.

As per claim 3, Chandrasekaran, Hamada and Kalkunte teaches the method of claim 1, but Chandrasekaran further teaches wherein storing in the non-persistent storage comprises storing in a log queue. (Fig. 2A element 204) (Column 6 lines 61-67) (Column 7 lines 1-2).

As per claim 7, Chandrasekaran, Hamada and Kalkunte teaches the method of claim 1, but Kalkunte further teaches further comprising determining the delay interval. (column 6 lines 65-67). **NOTE:** The reference teaches calculating the delay time (determining the delay interval).

As per claim 8, Chandrasekaran, Hamada and Kalkunte teaches the method of claim 7, but Kalkunte further teaches wherein determining the delay interval comprises: determining at least one metric based on messages handled by the server (column 5 lines 28-44); and determining the delay interval based on the at least one metric (column 6 lines 65-67) (column 5 lines 28-44) **NOTE:** The reference metric which in this case is delay time and/or value tow.

As per claim 9, Chandrasekaran, Hamada and Kalkunte teaches the method of claim 8, but Kalkunte further teaches wherein the metric comprises a metric based on a number of sending clients using the server to deliver messages (column 5 lines 28-44)

As per claim 10, Chandrasekaran, Hamada and Kalkunte teaches the method of claim 7, but Kalkunte further teaches wherein determining the delay interval comprises dynamically determining the delay (column 6 lines 65-67)

As per claim 11, Chandrasekaran, Hamada teaches the method of claim 1, but Chandrasekaran further teaches wherein the message was received over a communications network. (Fig. 13 element 728,722,726,720)

As per claim 12, Chandrasekaran, Hamada teaches the method of claim 1, but Chandrasekaran further teaches wherein the messages comprise a guaranteed messages; (column 7 lines 39-57) and wherein the messaging system comprises a message-oriented middleware system. (Column 7 lines 27-38) **NOTE:** The reference teaches sends the commit messages (guaranteed messages) to the destination site to indicate the transaction (transferring) should be committed. The reference also teaches that messages are maintained in the non-volatile memory at the source site until they are transferred to the destination site. Therefore in case of the source site failure, destination site will fetch the message from the non-volatile memory from the source site.

As per claim 16, Chandrasekaran teaches a computer program product, disposed on a computer readable medium, for handling messages received at a server, the computer program including instructions for causing a server processor to:

-store, in a non-persistent storage (Fig. 2A element 204), messages received from at least one client as the messages are received; (column 6 lines 61-67) (column 7 lines 1-2)(column 12 lines 4-11) **NOTE:** The reference teaches the message is stored in the propagation queue (non-persistent storage), and it also teaches upon receiving the message storing the message in received message queue (column 12 lines 4-11).

-determining whether one of the guaranteed messages has been delivered (column 11 lines 8-22); **NOTE:** The reference teaches storing in a table within non-volatile memory a message w/ UID value and initial states "prepared". The prepared state indicates the message has been sent but that an acknowledge message has not yet been received for the message from the destination site (determining whether the message has been delivered) since the acknowledgement has not been received, it means it is determining if the message has been delivered.

-if the guaranteed message has been delivered, removing the message from the non-persistent storage The reference teaches after the receiving message A in the destination site, message A will be dequeued from the received message queue (i.e. non-persistent storage).

-after a delay interval has elapsed and if the message has not removed from the non-persistent storage, save the message to persistent storage (column 7 lines 31-39) (column 10 lines 43-67) (column 11 lines 1-22) (column 12 lines 4-11, lines 33-42).

NOTE: In column 10 lines 43-67, column 11 lines 1-22, Chandrasekaran teaches the message is in the propagation queue which is non-persistent storage (volatile) and transmitting the message to the destination site, and still storing the message in the propagation queue (Fig. 3 element 312)(storing message in non-persistent storage) because the acknowledge message has not yet been received (responsive to the attempt not being successful), the propagation process then receives message data (content of the message) to store in durable or non-volatile memory (persistent storage) at the source site and by maintaining the propagated message data in a nonvolatile

memory (column 7 lines 30-39) a recovery mechanism is provided that allows the source site to determine whether the message has been sent to the destination site.

Chandrasekaran teaches after the delay interval has elapsed saving the message to the persistent storage (column 7 lines 31-39)(column 10 lines 43-67)(column 11 lines 1-22) but is silent in teaching so that message can be retrieved and delivered. Hamada teaches saving the message to the persistent storage so that message can be retrieved and delivered (Fig. 21 element 101-5, 201-5)(column 17 lines 35-65)(Fig. 23). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention was made to implement Hamada's teaching in Chandrasekaran's teaching to come up storing message in non-persistent storage for an interval and retrieving and delivering the message that is save in the persistent storage. The motivation for doing so would be so the message can be retrieved from the non-volatile memory and retransmitted or re-sent to the receiver or the destination at a later time, therefore non-volatile/persistent storage is used to save the message for later retransmission.

Chandrasekaran, and Hamada teaches if the message has not been removed from the non-persistent storage, saving the message to persistent storage so that message can be retrieved and delivered but are silent in teaching after a configurable delay interval has elapsed.

Kalkunte teaches after a configurable delay interval (column 5 lines 15-44)(column 6 lines 65-67). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention was made to implement Kalkunte's teaching in

Chandrasekaran and Hamada's teaching to come up with having a delay interval that is configurable. The motivation for doing so would be so that the user can set the amount to wait for the delay interval, before saving the message to the persistent storage.

As per claim 17, Chandrasekaran, Hamada and Kalkunte teaches a computer program of claim 16, but Chandrasekaran further teaches wherein the instructions for causing the server processor to store messages in the non-persistent storage comprise instructions for causing the server processor to store the messages in a log queue (Fig. 2A element 204)(column 6 lines 61-67) (column 7 lines 1-2).

As per claim 20, Chandrasekaran, Hamada and Kalkunte teaches a computer program of claim 16, but Kalkunte further teaches further comprising instructions for causing the server processor to determine the delay. (column 6 lines 65-67). **NOTE:** The reference teaches calculating the delay time (determining the delay interval).

As per claim 21, Chandrasekaran teaches the computer program of claim 20, wherein the instructions for causing the server processor to determine the delay comprise instructions for causing the server processor to: determine at least one metric based on the received messages (column 5 lines 28-44); and determine the delay based on the at least one metric (column 6 lines 65-67)(column 5 lines 28-44) **NOTE:** The reference metric which in this case is delay time and/or value tow.

As per claim 22, Chandrasekaran teaches the computer program of claim 21, wherein the metric comprises a metric based on a number of clients using the server to deliver messages (column 5 lines 28-44)

As per claim 23, Chandrasekaran and Hamada teaches a computer program of claim 16, but Chandrasekaran further teaches wherein the instructions for causing the processor to determine the delay comprise instructions for causing the processor to dynamically determining the delay. (Column 8 lines 20-47)

As per claim 24-25,28-31, they teach same limitations as claims 1-17,20-23 respectively, therefore rejected under same basis.

3. Claims 4-6,13-15,18-19,26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chandrasekaran in view of Hamada further in view of Kalkunte further in view of Stein et al. U.S. Patent 6,289,212 (hereinafter Stein).

As per claim 4, Chandrasekaran, Hamada and Kalkunte teaches the method of claim 1, but fails to teach further comprising transmitting an acknowledgement message to a client that sent the received message, the acknowledgement message indicating that the received message will not be lost by the server in the case of server failure. Stein teaches transmitting an acknowledgement message to a client that sent a received message, the acknowledgement message indicating that the received message will not be lost by the server in the case of server failure. (Column 12 lines 21-37). It would have obvious to one of ordinary skill in the art at the time of applicant's invention to implement Stein's teaching in Chandrasekaran, Hamada and Kalkunte's teaching to come up with transmitting an acknowledgement message. The motivation for transmitting the acknowledgement message is to let the user know that the message has been sent and be delivered.

As per claim 5, Chandrasekaran, Hamada and Kalkunte fails to teach the method of claim 4, wherein transmitting the acknowledgment message to the client comprises transmitting the acknowledgment message to the client for successful delivery of the received message. Stein teaches transmitting the acknowledgment message to the client comprises transmitting the acknowledgment message to the client for successful delivery of the received message (Column 12 lines 21-37) It would have obvious to one of ordinary skill in the art at the time of applicant's invention to implement Stein's teaching in Chandrasekaran, Hamada and Kalkunte's teaching to come up with transmitting an acknowledgement message.   The motivation for transmitting the acknowledgement message is to let the user know that the message has been sent and be delivered.

As per claim 6, Chandrasekaran, Hamada and Kalkunte fails to teach the method of claim 4, wherein transmitting the acknowledgment message to the client comprises transmitting the acknowledgment message to the client for storage of the received message in persistent storage. Stein teaches the method of claim 4, wherein transmitting an acknowledgment message to the client comprises transmitting the acknowledgment message to the client for the storage of the received message in persistent storage. (Column 12 lines 21-37). The reference teaches that message is sent and the facsimile message is placed in the asynchronous request queue. It would have obvious to one of ordinary skill in the art at the time of applicant's invention to implement Stein's teaching in Chandrasekaran, Hamada and Kalkunte's teaching to come up with transmitting the acknowledgement message for the received message's

storage in persistent storage. The motivation for doing so would have been so that the client knows that message is going to be delivered properly.

As per claim 13, Chandrasekaran teaches a method of handling guaranteed messages received at a message-oriented middleware server over a network, the method comprising: storing, in a log queue in non-persistent storage (Fig. 2 element 204) guaranteed messages received from at least one client as the guaranteed messages are received (column 6 lines 61-67) (column 7 lines 1-2)(column 12 lines 4-11) **NOTE:** The reference teaches the message is stored in the propagation queue (non-persistent storage), and it also teaches upon receiving the message storing the message in received message queue (column 12 lines 4-11).

-determining whether one of the guaranteed messages has been delivered (column 11 lines 8-22);

NOTE: The reference teaches storing in a table within non-volatile memory a message w/ UID value and initial states "prepared". The prepared state indicates the message has been sent but that an acknowledge message has not yet been received for the message from the destination site (determining whether the message has been delivered) since the acknowledgement has not been received, it means it is determining if the message has been delivered.

-if the guaranteed message has been delivered, removing the message from the non-persistent storage (column 12 lines 24-31) **NOTE:** The reference teaches after the receiving message A in the destination site, message A will be dequeued from the received message queue (i.e. non-persistent storage).

-after delay period has elapsed and saving the guaranteed message to persistent storage (column 7 lines 31-39) (column 10 lines 43-67) (column 11 lines 1-22).

In column 10 lines 43-67, column 11 lines 1-22, Chandrasekaran teaches the message is in the propagation queue (log queue) which is non-persistent storage (volatile) and transmitting the message to the destination site, and still storing the message in the propagation queue (Fig. 3 element 312)(storing message in non-persistent storage) because the acknowledge message has not yet been received (responsive to the attempt not being successful) and after a delay interval the propagation process then receives message data (content of the message) to store in durable or non-volatile memory (persistent storage) at the source site and by maintaining the propagated message data in a nonvolatile memory (column 7 lines 30-39)(emphasis added) a recovery mechanism is provided that allows the source site to determine whether the message has been sent to the destination site.

Chandrasekaran fails to teach if attempting to deliver one of the guaranteed message was not successful, continuing to store the guaranteed message in the non-persistent storage and after the determined delay period has elapsed saving the guaranteed message to the persistent storage so that the guaranteed message can be retrieved and delivered. Hamada teaches if attempting to deliver one of the guaranteed message was not successful, continuing to store the guaranteed message in the non-persistent storage (column 7 lines 55-64) and after the determined delay period has elapsed saving the guaranteed message to the persistent storage so that the guaranteed message can be retrieved and delivered (Fig. 21 element 101-5, 201-

5)(column 17 lines 35-65)(Fig. 23). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention was made to implement Hamada's teaching in Chandrasekaran's teaching to come up storing message in non-persistent storage for an interval and retrieving and delivering the message that is save in the persistent storage. The motivation for doing so would be so the message can be retrieved from the non-volatile memory and retransmitted or re-sent to the receiver or the destination at a later time, therefore non-volatile/persistent storage is used to save the message for later retransmission.

Chandrasekaran, Hamada teaches a delay time period, but are silent in teaching dynamically determining a delay time period and the determined delay time period. Kalkunte teaches dynamically determining a delay time period and the determined delay time period (column 5 lines 15-44)(column 6 lines 65-67). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention was made to implement Kalkunte's teaching in Chandrasekaran and Hamada's teaching to come up with having a delay interval that is configurable. The motivation for doing so would be so that the user can set the amount to wait for the delay interval, before saving the message to the persistent storage.

Chandrasekaran, Hamada and Kalkunte fails to teach transmitting a guarantee acknowledgement message to a client that sent the received guaranteed message whose delivery was attempted, the guarantee acknowledgement message indicating that the message will not be lost by the server. Stein teaches transmitting a guarantee acknowledgement message to a client that sent the received guaranteed message

whose delivery was attempted, the guarantee acknowledgement message indicating that the message will not be lost by the server. (column 12 lines 21-37). The reference teaches that the facsimile message has been sent is a guaranteed message indicating the message is not going to be lost because if the other side would not receive the fax, the message has been sent would not be displayed. It would have obvious to one of ordinary skill in the art at the time of applicant's invention to implement Stein's teaching in Chandrasekaran, Hamada and Kalkunte's teaching to come up with transmitting an acknowledgement message. The motivation for transmitting the acknowledgement message is to let the user know that the message has been sent and be delivered.

As per claim 14, Chandrasekaran, Hamada, Kalkunte and Stein teaches the method of claim 13, but Chandrasekaran, Hamada and Kalkunte fails to teach transmitting the guarantee acknowledgement message comprises: if the guaranteed message was successfully delivered, transmitting the guarantee acknowledgement message; and if the guaranteed message was not successfully delivered, transmitting the guarantee acknowledgement message when the guaranteed message is persistently stored.   Stein teaches transmitting the guarantee acknowledgement message comprises if the guaranteed message was successfully delivered, transmitting the guarantee acknowledgement message (Column 12 lines 21-37); and if the guaranteed message was not successfully delivered, transmitting the guarantee acknowledgement message when the guaranteed message is persistently stored (Column 12 lines 21-37). It would have obvious to one of ordinary skill in the art at the time of applicant's invention to implement Stein's teaching in Chandrasekaran, Hamada

and Kalkunte's teaching to come up with acknowledgement message when the message is persistently stored if the guaranteed message not successfully delivered. The motivation for doing so would have to let the user know that the message has been received by source site and will be delivered properly.

As per claim 15, Chandrasekaran, Hamada, Kalkunte and Stein teaches the method of claim 13, but Kalkunte further teaches wherein dynamically determining the delay time period comprises: determining a metric based on messages handled by the server (column 5 lines 28-44); and determining the delay time period based on the determined metric (column 6 lines 65-67) (column 5 lines 28-44) **NOTE:** The reference metric which in this case is delay time and/or value tow.

As per claim 18, Chandrasekaran, Hamada and Kalkunte teaches the computer program of claim 16, but fails to teach further comprising instructions for causing the server processor to transmit an acknowledgement message to a client that sent the received message whose delivery was attempted, the acknowledgement message indicating that the received message will not be lost by the server. Stein teaches instructions for causing the server processor to transmit an acknowledgement message to a client that sent a received message whose delivery was attempted, the acknowledgement message indicating that the received message will not be lost by the server. (Column 12 lines 21-37). It would have obvious to one of ordinary skill in the art at the time of applicant's invention to implement Stein's teaching in Chandrasekaran, Hamada and Kalkunte's teaching to come up with transmitting an acknowledgement

message. The motivation for transmitting the acknowledgement message is to let the user know that the message has been sent and be delivered.

As per claim 19, Chandrasekaran and Hamada fails to teach the computer program of claim 18, wherein the instructions for causing the server processor to transmit the acknowledgment message to the client comprise instructions for causing the server processor to transmit the acknowledgment message to the client for a message saved from non-persistent storage to persistent storage. Stein teaches the computer program of claim 18, wherein the computer program instructions for causing the server processor to transmit an acknowledgment message to the client comprise instructions for causing the server processor to transmit the acknowledgment message to the client for a message saved from non-persistent storage to persistent storage. (Column 12 lines 21-37). The reference teaches that message is sent and the facsimile message is placed in the asynchronous request queue. It would have obvious to one of ordinary skill in the art at the time of applicant's invention to Stein's teaching in Chandrasekaran, Hamada and Kalkunte's teaching to come up with transmitting the acknowledgement message for messages saved to persistent storage. The motivation for doing so would have been so that the client knows that message is going to be delivered properly.

As per claim 26-27 they teach same limitations as claim 18,19 respectively. Therefore rejected under same basis.

Response to Arguments

Applicant's arguments with respect to claims 1,13,16,24 have been considered but are deemed non-persuasive.

As per remarks, applicant stated the following:

A). Applicant states Chandrasekaran does not disclose "if the message has been delivered, removing the message from the non-persistent storage".

As per remark A, Examiner respectfully disagrees with the applicant because in column 12 lines 24-31, Chandrasekaran teaches after the receiving message A in the destination site, message A will be dequeued from the received message queue (i.e. non-persistent storage). Chandrasekaran specifically states receiving message "A", and then dequeing message "A" from message queue at the source site. The message queue is non-persistent storage. Applicant states requirement for removing the message in Chandrasekaran is completely different from the present invention. Examiner would like to point out, claim language states "if the message has been delivered", Chandrasekaran in column 12 lines 24-25 states receiving message "A" at the destination site" and then claim language states "removing the message from the non-persistent storage", Chandrasekaran teaches dequeuing the message after it has been delivered from the received message queue at the source site which means the message is removed from the non-persistent storage after it has been delivered. The removing of the message step is conducting after the message has been received/delivered in Chandrasekaran, therefore Chandrasekaran teaches the claimed limitations.

B). Applicant states Chandrasekaran and Hamada does not disclose "after a configurable delay period has elapsed, and if the message has not been removed from the non-persistent storage saving the message to persistent storage so that message can be retrieved and delivered"

As per remark B, Examiner respectfully disagrees with the applicant because in column 10 lines 43-67, column 11 lines 1-22, column 12 lines 4-11, lines 33-42, Chandrasekaran teaches after a delay period (column 12 lines 12-13), if the message has not been removed from the non-persistent storage, saving the message to persistent storage. Chandrasekaran teaches the message is in the propagation queue which is non-persistent storage (volatile) and transmitting the message to the destination site, and still storing the message in the propagation queue (Fig. 3 element 312)(storing message in non-persistent storage) because the acknowledge message has not yet been received (responsive to the attempt not being successful), the propagation process then receives message data (content of the message) to store in durable or non-volatile memory (persistent storage) at the source site and by maintaining the propagated message data in a nonvolatile memory (column 7 lines 30-39) a recovery mechanism is provided that allows the source site to determine whether the message has been sent to the destination site. Examiner would like to point out that Chandrasekaran particularly states that destination site *waits* for a commits message (column 12 lines 12-13), so that the received message is stored in the non-volatile memory (column 12 lines 32-40). This is consideration a delay period has elapsed. According the Fig. 2D, it shows message A is still not removed from the received

message queue (non-persistent storage) (step 1B) and after a wait for commit message

(steps 5A), then the message is stored at non-volatile memory (persistent storage) (step

2b) and (Fig. 4 step 410).

Applicant states Chandrasekaran teaches saving propagated message data to

the persistent storage.   Examiner would like to point out, Although, Chandrasekaran

teaches saving propagated message data in the persistent storage, it is used to

retrieved and delivered at a later time incase of source site failure (column 7 lines 30-

50). Therefore, Chandrasekaran does teach storing message in non-volatile memory.

Examiner would also like to point out that the claim language states "storing message"

in the non-volatile memory which can be any message i.e. it can be broadly interpreted

to include propagated message data. Claim language does not specify that the storing

the "original message sent".

C). Applicant states Hamada does not teach "after a configurable delay interval

has elapsed and if the message has not been removed from the non-persistent storage,

saving the message to persistent storage so that message can be retrieved and

delivered".

As per remark C, Examiner respectfully disagrees w/ the applicant because in

column 17 lines 35-65, Hamada teaches saving the message to the persistent storage

so that message can be retrieved and delivered (Fig. 21 element 101-5, 201-5)(column

17 lines 35-65)(Fig. 23). Hamada specifically states, the message ID and the content of

the message are also stored in non-volatile memory. In column 6 lines 35-39, Hamada

teaches saving the message to the non-volatile memory, therefore if the failure occurs

the information is recalled to the volatile memory. In column 8 lines 9-13, Hamada teaches when the message is received from the client, the server checks whether the process from client has been completed by making a reference to the volatile memory which means the message is stored in the volatile memory of client initially. When it is determined the process is not yet performed, the message is stored in non-volatile memory (column 8 lines 17-23). This means if the message is not removed from the volatile memory, saving to the non-volatile memory. Therefore Hamada teaches the claimed limitations.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention was made to implement Hamada's teaching in Chandrasekaran's teaching to come up storing message in non-persistent storage for an interval and retrieving and delivering the message that is save in the persistent storage. The motivation for doing so would be so the message can be retrieved from the non-volatile memory and retransmitted or re-sent to the receiver or the destination at a later time, therefore non-volatile/persistent storage is used to save the message for later retransmission.

D). Applicant states Kalkunte does not teach "after a configurable delay interval has elapsed and if the message has not been removed from the non-persistent storage, saving the message to persistent storage so that message can be retrieved and delivered".

As per remark D, Examiner respectfully disagrees with the applicant because Chandrasekaran and Hamada teaches teaches if the message has not been removed

from the non-persistent storage, saving the message to persistent storage so that message can be retrieved and delivered but both are silent in teaching after a configurable delay interval has elapsed. Kalkunte teaches after a configurable delay interval (column 5 lines 15-44) (column 6 lines 65-67). Kalkunte teaches having the propagation delay interval which is can be any value *upto* 2.56 microseconds based on the value of t. This means this a configurable delay interval. Therefore Kalkunte teaches configurable delay interval.

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention was made to implement Kalkunte's teaching in Chandrasekaran and Hamada's teaching to come up with having a delay interval that is configurable to remove message from non-persistent storage and saving to the persistent storage. The motivation for doing so would be so that the user can set the amount to wait for the delay interval, before saving the message to the persistent storage.

As per claim 13, applicant submits same remarks as listed above. Therefore refer to examiner's response for remarks A-D listed above for claim 13.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A). "Message Transfer in communication network" by Black et al. U.S. Patent # 5,878,056.

B). "Reliable Event Delivery System" by Kailash et al. U.S. Patent # 5,951,648

5. A shortened statutory period for response to this action is set to expire **3**

(three) months and 0 (zero) days from the mail date of this letter. Failure to respond

within the period for response will result in **ABANDONMENT** of the applicant (see 35

U.S.C 133, M.P.E.P 710.02, 710.02(b)).

 THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

 A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

 6.

 Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Dhairya A. Patel whose telephone number is 571-272-

5809. The examiner can normally be reached on 8:00-5:30.

 If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John Follansbee can be reached on 571-272-3964. The fax phone number

for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DAP

/John Follansbee/

Supervisory Patent Examiner, Art Unit 2451